

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/715,729 Confirmation No.: Unassigned
Applicant: Sommadossi *et al.*
Filed: November 17, 2003
TC/A.AU.: Unassigned
Examiner: Unassigned

Docket No.: 06171.105062 IDX 1023
Customer No.: 20786
Title: 2'-Branched Nucleosides and Flaviviridae Mutation

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Transmittal of Information Disclosure Statement

Sir:

The citation of information on the attached Form PTO-1449 is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of all references are enclosed. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Because this Information Disclosure Statement is being submitted before the mailing of a first Office action on the merits, the Applicants do not believe that any additional fees are due; however, the Commissioner is hereby authorized to charge any fees due or credit any overpayment to Deposit Account No. 11-0980.

Respectfully submitted,

Sherry M. Knowles, Esq.
Reg. No. 33,052

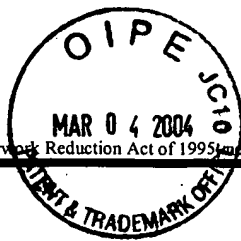
King & Spalding, LLP
191 Peachtree Street, N.E., Atlanta, GA 30303
Office: (404)572-4600/ Fax: 404-572-5145

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in 3 boxes addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 2, 2004

Jennifer A. Williams

3420392_1.DOC



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **1** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

U.S. PATENT DOCUMENTS


Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA	3,798,209	A	Witkowski, <i>et al.</i>	03-19-1974	
	AB	RE29,835		Witkowski <i>et al.</i>	11-14-1978	
	AC	4,522,811	A	Eppstein <i>et al.</i>	06-11-1985	
	AD	4,957,924	A	Beauchamp	09-18-1990	
	AE	5,149,794	A	Yatvin <i>et al.</i>	09-22-1992	
	AF	5,157,027	A	Biller <i>et al.</i>	10-20-1992	
	AG	5,194,654	A	Hostetler <i>et al.</i>	03-16-1993	
	AH	5,223,263	A	Hostetler <i>et al.</i>	06-29-1993	
	AI	5,256,641	A	Yatvin <i>et al.</i>	10-26-1993	
	AJ	5,372,808	A	Blatt <i>et al.</i>	12-13-1994	
	AK	5,411,947	A	Hostetler <i>et al.</i>	05-02-1995	
	AL	5,463,092	A	Hostetler <i>et al.</i>	10-31-1995	
	AM	5,543,389	A	Yatvin <i>et al.</i>	08-06-1996	
	AN	5,543,390	A	Yatvin <i>et al.</i>	08-06-1996	
	AO	5,543,391	A	Yatvin <i>et al.</i>	08-06-1996	
	AP	5,554,728	A	Basava <i>et al.</i>	09-10-1996	
	AQ	5,676,942	A	Testa <i>et al.</i>	10-14-1997	
	AR	5,738,845	A	Imakawa	04-14-1998	
	AS	5,830,455	A	Valtuna <i>et al.</i>	11-03-1998	
	AT	5,849,696	A	Chretien <i>et al.</i>	12-15-1998	
	AU	5,908,621	A	Glue <i>et al.</i>	06-01-1999	
	AV	5,928,636	A	Alber <i>et al.</i>	07-27-1999	
	AW	5,942,223	A	Bazer <i>et al.</i>	08-24-1999	
	AX	5,977,061	A	Holy <i>et al.</i>	11-02-1999	
	AY	5,980,884	A	Blatt <i>et al.</i>	11-09-1999	
	AZ	6,312,662		Erion <i>et al.</i>	11-06-2001	
	AAA	6,340,690	B1	Bachand <i>et al.</i>	01-22-2002	
	AAB	6,395,716	B1	Gosselin <i>et al.</i> (Novirio / Idenix)	05-28-2002	
	AAC	6,444,652	B1	Gosselin <i>et al.</i> (Novirio / Idenix)	09-03-2002	
	AAD	2002/0147160	A1	Bhat <i>et al.</i>	10-10-2002	
	AAE	2003/0008841	A1	Devos <i>et al.</i>	01-09-2003	
	AAF	2003/0028013	A1	Wang <i>et al.</i>	02-06-2003	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **2** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	BA	2003/0050229	A1	Sommadossi <i>et al.</i>	03-13-2003	
	BB	2003/0060400	A1	LaColla <i>et al.</i>	03-27-2003	
	BC	2003/0083307	A1	Devos <i>et al.</i>	05-01-2003	

FOREIGN PATENT DOCUMENTS


Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number	Kind Code ² (if known)				
	BD	DE	3,512,781	A1	Soc. Nat. Elf Aquitaine	10-17-1985		
	BE	EP	0,180,276	B1	Stamincarbone B.V.	12-28-1988		
	BF	EP	0,350,287	B1	Chimerix, Inc.	09-27-2000		
	BG	EP	0,650,371	B1	State of Oregon	11-15-2000		
	BH	FR	1,521,076	A	Merck & Co. Inc.	04-12-1968		
	BI	FR	2,662,165	A	Univ. Paris Curie	11-22-1991		
	BJ	GB	1,163,103	A	Merck & Co. Inc.	09-04-1969		
	BK	GB	1,209,654	A	Merck & Co. Inc.	10-21-1970		
	BL	WO	89/02733	A1	Univ. of California	04-06-1989		
	BM	WO	90/00555	A1	Vical Inc.	01-25-1990		
	BN	WO	91/16920	A1	Vical Inc.	11-14-1991		
	BO	WO	91/18914	A1	Vical Inc.	12-12-1991		
	BP	WO	91/19721	A1	Glazier	12-26-1991		
	BQ	WO	93/00910	A1	Vical Inc.	01-21-1993		
	BR	WO	94/26273	A1	Hostetler	11-24-1994		
	BS	WO	96/15132	A1	Univ. of California	05-23-1996		
	BT	WO	99/15194	A1	Schering Corporation	04-01-1999		
	BU	WO	99/43691	A1	Emory U.; U.Ga.R.F.	02-09-1999		
	BV	WO	99/45016	A2	Metabasis Therapeutics.	09-10-1999		
	BW	WO	99/59621	A1	Schering Corporation	11-25-1999		
	BX	WO	99/64016	A1	Hoffman-La Roche AG	12-16-1999		
	BY	WO	00/09531	A2	Novirio (Idenix); CNRS	02-24-2000		
	BZ	WO	00/24355	A1	Smith & Nephew Kinetic	05-04-2000		
	BAA	WO	00/37110	A2&3	Schering Corporation	06-29-2000		
	BAB	WO	00/52015	A2	Metabasis Therapeutics	09-08-2000		

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **3** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

FOREIGN PATENT DOCUMENTS


Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number	Kind Code ² (if known)				
	CA	WO	01/18013	A1	Metabasis Therapeutics	03-15-2001		
	CB	WO	01/32153	A2	Biochem Pharma	05-10-2001		
	CC	WO	01/47935	A2&3	Metabasis Therapeutics	07-05-2001		
	CD	WO	01/60315	A2	Biochem Pharma	08-23-2001		
	CE	WO	01/79246	A2	Pharmasset	10-25-2001		
	CF	WO	01/81359	A1	Schering Corporation	11-01-2001		
	CG	WO	01/90121	A2	Novirio Pharm. (Idenix)	11-29-2001		
	CH	WO	01/91737	A2	Novirio Pharm. (Idenix)	12-06-2001		
	CI	WO	01/92282	A2	Novirio Pharm. (Idenix)	12-06-2001		
	CJ	WO	01/96353	A2	Novirio Pharm. (Idenix)	12-20-2001		
	CK	WO	02/18404	A2	F. Hoffmann-La Roche	03-07-2002		
	CL	WO	02/32414	A2&3	Schering Corporation	04-25-2002		
	CM	WO	02/32920	A2	Pharmasset Limited	04-25-2002		
	CN	WO	02/48165	A2	Pharmasset Limited	06-20-2002		
	CO	WO	02/057287	A2	Merck & Co. Inc.	07-25-2002		
	CP	WO	02/057425	A2	Merck & Co. Inc.	07-25-2002		
	CQ	WO	02/070533	A2	Pharmasset Limited	09-12-2002		
	CR	WO	02/094289	A1	F. Hoffmann-La Roche	11-28-2002		
	CS	WO	02/100415	A2	F. Hoffmann-La Roche	12-19-2002		
	CT	WO	03/024461	A1	Schering Corporation	03-27-2003		
	CU	WO	03/026589	A2	Idenix; CNRS; U. Montp.	04-03-2003		
	CV	WO	03/026675	A1	Idenix; CNRS; U. Montp.	04-03-2003		
	CW	WO	03/061385	A1	Ribarpharm	07-31-2003		
	CX	WO	03/062255	A2	Ribarpharm	07-31-2003		
	CY	WO	04/002422	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		
	CZ	WO	04/002999	A2	Idenix; Univ.D.S.Cagliari	01-08-2004		
	CAA	WO	04/003138	A2	Merck; Isis	01-08-2004		
	CAB	WO	04/009020	A2	Merck; Isis	01-29-2004		

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **4** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306_1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	DA	ALT, M., <i>et al.</i> , "Core specific antisense phosphorothioate oligodeoxynucleotides as potent and specific inhibitors of hepatitis C viral translation," <i>Archives of Virology</i> , 142:589-599 (1997).	
	DB	ALT, M., <i>et al.</i> , "Specific inhibition of hepatitis C viral gene expression by antisense phosphorothioate oligodeoxynucleotides," <i>Hepatology</i> , 22:707-717 (1995).	
	DC	ALTMANN <i>et al.</i> , "The synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid duplex stability," <i>Synlett, Thieme Verlag, Stuttgart, De</i> , 10:853-855 (1994).	
	DD	BAGINSKI, S. G., <i>et al.</i> , "Mechanism of action of a pestivirus antiviral compound," <i>PNAS USA</i> , 97(14):7981-7986 (2000).	
	DE	BATTAGLIA, A.M. <i>et al.</i> , "Combination Therapy with Interferon and Ribavirin in the Treatment of Chronic Hepatitis C Infection", <i>Ann. Pharmacother</i> , 34:487-494 (2000).	
	DF	BEIGELMAN, L.N., <i>et al.</i> , "Epimerization during the acetolysis of 3-O-acetyl-5-O-benzoyl-1,2-O-isopropylidene-3-C-methyl- α ,D-ribofuranose. Synthesis of 3'-C-methylnucleosides with the β -D-ribo- and α -D-arabino configurations," <i>Carbohydrate Research</i> , 181:77-88 (1988).	
	DG	BEIGELMAN, L.N., <i>et al.</i> , "A general method for synthesis of 3'-C-alkylnucleosides," <i>Nucleic Acids Symp. Ser.</i> , 9:115-118 (1981).	
	DH	BERENGUER, M., <i>et al.</i> , "Hepatitis B and C viruses: Molecular identification and targeted antiviral therapies," <i>Proceedings of the Association of American Physicians</i> , 110(2), 98-112 (1998).	
	DI	BERENGUER, M. <i>et al.</i> , "Hepatitis C virus in the transplant setting", <i>Antivir. Ther.</i> , 3 (Suppl 3):125-136 (1998).	
	DJ	BERMAN, E., <i>et al.</i> , "Synergistic cytotoxic effect of azidothymidine and recombinant interferon alpha on normal human bone marrow progenitor cells," <i>Blood</i> , 74(4):1281-1286 (1989)	
	DK	BHAT <i>et al.</i> (Oral Session V, Hepatitis C Virus, Flaviviridae, 2003 (Oral Session V, Hepatitis C Virus, Flaviviridae; 16 th International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.); p A75).	
	DL	BROWNE, M.J., <i>et al.</i> , "2',3'-didehydro-3'-deoxythymidine (d4T) in patients with AIDS or AIDS-Related Complex: A Phase I trial," <i>J. Infect. Dis.</i> , 167(1):21-29 (1993).	
	DM	COLACINO, J. M., "Review article: Mechanisms for the anti-hepatitis B virus activity and mitochondrial toxicity of fialuridine (FIAU)," <i>Antiviral Res.</i> , 29(2-3): 125-39 (1996).	
	DN	CUI, L., <i>et al.</i> , "Cellular and molecular events leading to mitochondrial toxicity of 1-(2-deoxy-2-fluoro-1- β -D-arabinofuranosyl)-5-iodouracil in human liver cells," <i>J. Clin. Invest.</i> , 95:555-563 (1995).	
	DO	CZERNECKI, S., <i>et al.</i> , "Synthesis of various 3'-branched 2',3'-unsaturated pyrimidine nucleosides as potential anti-HIV agents," <i>J. Org. Chem.</i> , 57:7325-7328 (1992).	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/715,729
				Filing Date	November 17, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	5	of	11	Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	EA	DAVIS, G.L., "Current therapy for chronic Hepatitis C," <i>Gastroenterology</i> 118:S104-S114 (2000).	
	EB	De FRANCESCO, R., <i>et al.</i> , "Approaching a new era for hepatitis C virus therapy: Inhibitors of the NS3-4A serine protease and the NS5B RNA-dependent RNA polymerase," <i>Antiviral Research</i> , 58:1-16 (2003).	
	EC	De LOMBAERT, S., <i>et al.</i> , "N-Phosphonomethyl dipeptides and their phosphonate prodrugs, a new generation of neutral endopeptidase (NEP, EC 3.4.24.11) inhibitors," <i>J. Med. Chem.</i> , 37:498-511 (1994).	
	ED	DORNSIFE, R. E. <i>et al.</i> , "In Vitro Potency of Inhibition by Antiviral Drugs of Hematopoietic Progenitor Colony Formation Correlates with Exposure at Hemotoxic Levels in Human Immunodeficiency Virus-Positive Humans" <i>Antimicrob. Agents Chemother.</i> 40(2):514-519 (1996)	
	EE	DYMOCK, B.W., <i>et al.</i> , "Review: Novel approaches to the treatment of hepatitis C virus infection," <i>Antiviral Chemistry & Chemotherapy</i> , 11(2):79-96 (2000).	
	EF	ELDRUP <i>et al.</i> (Oral Session V, Hepatitis C Virus, Flaviviridae; 16 th International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.).	
	EG	FAIVRE-BUET, V., <i>et al.</i> , "Synthesis of 1'-deoxypsycofuranosyl-deoxynucleosides as potential anti-HIV agents," <i>Nucleosides & Nucleotides</i> , 11(7):1411-1424 (1992).	
	EH	FARKAS, J., <i>et al.</i> , "Nucleic acid components and their analogues. XCIV. Synthesis of 6-amino-9-(1-deoxy-β-D-psicofuranosyl)purine", <i>Collect. Czech. Chem. Commun.</i> 32:2663-2667 (1967).	
	EI	FARKAS, J., <i>et al.</i> , "Nucleic acid components and their analogues. LXXIX. Synthesis of methyl 1-deoxy-D-psicofuranosides substituted at C ₍₁₎ with halo atoms or a mercapto group," <i>Collect. Czech. Chem. Commun.</i> , 31:1535-1543 (1996).	
	EJ	FARQUHAR, D., <i>et al.</i> , "Synthesis and biological evaluation of neutral derivatives of 3-fluoro-2'-deoxyuridine 5'-phosphate," <i>J. Med. Chem.</i> , 26: 1153-1158 (1983).	
	EK	FARQUHAR, D., <i>et al.</i> , "Synthesis and biological evaluation of 9-[5'-(2-oxo-1,3,2-oxazaphosphorinan-2-yl)-β-D-arabinosyl]adenine and 9-[5'-(2-oxo-1,3,2-dioxazaphosphorinan-2-yl)-β-D-arabinosyl]adenine: Potential neutral precursors of 9-[β-D-arabinofuranosyl]adenine 5'-monophosphate," <i>J. Med. Chem.</i> , 28:1358-1361 (1985).	
	EL	FEDOROV, I.I., <i>et al.</i> , "3'-C-Branched 2'-deoxy-5-methyluridines: Synthesis, enzyme inhibition, and antiviral properties," <i>J. Med. Chem.</i> , 35(24):4567-4575 (1992).	
	EM	FERRARI R., <i>et al.</i> , "Characterization of soluble hepatitis C virus RNA-dependent RNA polymerase expressed in <i>Escherichia coli</i> ," <i>Journal of Virology</i> , 73(2), 1649-1654 (1999).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known		
				Application Number	10/715,729	
Sheet		6	of	11	Examiner Name	Unassigned
					Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	FA	FISCHL, M.A., <i>et al.</i> , "Zalcitabine compared with zidovudine in patients with advanced HIV-1 infection who received previous zidovudine therapy," <i>Ann. Intern. Med.</i> , 18(10):762-769 (1993).	
	FB	FRANCHETTI, P., <i>et al.</i> , "2'-C-Methyl analogues of selective adenosine receptor agonists: synthesis and binding studies," <i>J. Med. Chem.</i> , 41(10):1708-1715 (1998).	
	FC	FREED, J.J., <i>et al.</i> , "Evidence for acyloxymethyl esters of pyrimidine 5'-deoxyribonucleotides as extracellular sources of active 5'-deoxyribonucleotides in cultured cells," <i>Biochemical Pharmacology</i> , 38:3193-3198 (1989).	
	FD	GALDERISI, U., <i>et al.</i> , "Antisense oligonucleotides as therapeutic agents," <i>Journal of Cellular Physiology</i> , 181(2):251-257 (November 1999).	
	FE	GROUILLER, A., <i>et al.</i> , "Novel <i>p</i> -toluenesulfonylation and thionocarbonylation of unprotected thymine nucleosides," <i>Synlett</i> , 1993, 221-222 (March 1993).	
	FF	GUNIC, E., <i>et al.</i> , "Synthesis and cytotoxicity of 4'-C- and 5'-C-substituted Toyocamycins," <i>Bioorg. Med. Chem.</i> , 9:163-170 (2001).	
	FG	HARAGUCHI, K., <i>et al.</i> , "Preparation and reactions of 2'- and 3'- vinyl bromides of uracil nucleosides: Versatile synthons for anti-HIV agents," <i>Tetrahedron Letters</i> , 32(28):3391-3394 (1991).	
	FH	HARAGUCHI, K., <i>et al.</i> , "Stereoselective synthesis of 1'-C-branched uracil nucleosides from uridine," <i>Nucleosides & Nucleotides</i> , 14(3-5):417-420 (1995).	
	FI	HARRY-O'KURU, R.E., <i>et al.</i> , "A short, flexible route toward 2'-C-branched ribonucleosides," <i>J. Org. Chem.</i> , 62:1754-1759 (1997). (Scheme 11).	
	FJ	HARRY-O'KURU, R.E., <i>et al.</i> , "2'-C-Alkylribonucleosides: Design, synthesis, and conformation," <i>Nucleosides & Nucleotides</i> , 16(7-9):1457-1460 (1997).	
	FK	HATTORI, H., <i>et al.</i> , "Nucleosides and nucleotides. 175. Structural requirements of the sugar moiety for the antitumor activities of new nucleoside antimetabolites, 1-(3-C-ethynyl-b-D-ribo-pentofuranosyl)cytosine and -uracil," <i>J. Med. Chem.</i> , 41:2892-2902 (1998).	
	FL	HOSTETLER, K.Y., <i>et al.</i> , "Synthesis and antiretroviral activity of phospholipids analogs of azidothymidine and other antiviral nucleosides," <i>J. Biol. Chem.</i> , 265:6112-6115 (1990).	
	FM	HOSTETLER, K.Y., <i>et al.</i> , "Greatly enhanced inhibition of Human Immunodeficiency Virus Type I replication in CEM and HT4-6C cells by 3'-deoxythymidine diphosphate dimyristoylglycerol, a lipid prodrug of 3'-deoxythymidine," <i>Antimicrob. Agents Chemother.</i> , 36:2025-2029 (September 1992).	
	FN	HUNSTON, R.N., <i>et al.</i> , "Synthesis and biological properties of some cyclic phosphotriesters derived from 2'-deoxy-5-fluorouridine," <i>J. Med. Chem.</i> , 27:440-444 (1984).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/715,729
				Filing Date	November 17, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	7	of	11	Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	GA	HREBABECKY, H., <i>et al.</i> , "Nucleic acid components and their analogues. CXLIX. Synthesis of pyrimidine nucleosides derived from 1-deoxy-D-psicose," <i>Collect. Czech. Chem. Commun.</i> , 37:2059-2065 (1972).	
	GB	HREBABECKY, H., <i>et al.</i> "Synthesis of 7- and 9β-D-psicofuranosylguanine and their 1'-deoxy derivatives," <i>Collect. Czech. Chem. Commun.</i> , 39:2115-2123 (1974).	
	GC	IINO, T., <i>et al.</i> , "Nucleosides and nucleotides. 139. Stereoselective synthesis of (2'S)-2'-C-alkyl-2'-deoxyuridines," <i>Nucleosides and Nucleotides</i> , 15(1-3):169-181 (1996).	
	GD	ITOH, Y., <i>et al.</i> , "Divergent and stereocontrolled approach to the synthesis of uracil nucleosides branched at the anomeric position," <i>J. Org. Chem.</i> , 60(3):656-662 (1995).	
	GE	JOHNSON, C.R., <i>et al.</i> , "3'-C-Trifluoromethyl ribonucleosides," <i>Nucleosides & Nucleotides</i> , 14(1&2):185-194 (1995).	
	GF	JONES, G. H.; Moffatt, J. G., <i>Methods in Carbohydrate Chemistry</i> ; Whisler, R. L. and Moffatt, J. L. Eds; Academic Press: New York, 1972; 315-322	
	GG	JONES, G. H., <i>et al.</i> , "4'-substituted nucleosides. 5. Hydroxymethylation of nucleoside 5'-aldehydes," <i>J. Org. Chem.</i> , 44:1309-1317 (1979).	
	GH	KAWANA, M., <i>et al.</i> , "The deoxygenation of tosylated adenosine derivatives with Grignard reagents," <i>Nucleic Acids Symp. Ser.</i> , 17:37-40 (1986).	
	GI	KHAMNEI, S., "Neighboring group catalysis in the design of nucleotide prodrugs," <i>J. Med. Chem.</i> , 39:4109-4115 (1996).	
	GJ	KUCERA, L.S., <i>et al.</i> , "Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation," <i>AIDS Res. Hum. Retro Viruses</i> , 6:491-501 (1990).	
	GK	KURTZBERG J., <i>et al.</i> , "Differential toxicity of carbovir and AZT to human bone marrow hematopoietic progenitor cells in vitro," <i>Exp. Hematol.</i> , 18(10):1094-1096 (1990).	
	GL	LAI, V.C.H., <i>et al.</i> , "Mutational analysis of bovine viral diarrhea virus RNA-dependent RNA polymerase," <i>J. Virol.</i> , 73(12):10129-10136 (December 1999).	
	GM	LAFAIRE, S., <i>et al.</i> , "3'-Deoxy-3'-C-trifluoromethyl nucleosides: Synthesis and antiviral evaluation," <i>Nucleosides & Nucleotides</i> , 17(12):2267-2280 (1998).	
	GN	LEONARD, N. J., <i>et al.</i> , "5-Amino-5-deoxyribose derivatives. Synthesis and use in the preparation of "reversed" nucleosides" <i>J. Heterocycl. Chem.</i> , 3:485-489 (December 1966).	
	GO	LERZA, R., <i>et al.</i> , "In vitro synergistic inhibition of human bone marrow hemopoietic progenitor growth by a 3'-azido-3'-deoxy-thymidine, 2',3'-dideoxycytidine combination," <i>Exp. Hematol.</i> , 25(3):252-255 (1997).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/715,729
				Filing Date	November 17, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	8	of	11	Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	HA	LEWIS W, <i>et al.</i> , "Zidovudine induces molecular, biochemical, and ultrastructural changes in rat skeletal muscle mitochondria," <i>J. Clin. Invest.</i> , 89(4):1354-1360 (1992).	
	HB	LEWIS, L. D., <i>et al.</i> , "Ultrastructural changes associated with reduced mitochondrial DNA and impaired mitochondrial function in the presence of 2'3'-dideoxycytidine," <i>Antimicrob. Agents Chemother.</i> , 36(9):2061-2065 (1992).	
	HC	LEWIS, W., <i>et al.</i> , "Fialuridine and its metabolites inhibit DNA polymerase γ at sites of multiple adjacent analog incorporation, decrease mtDNA abundance, and cause mitochondrial structural defects in cultured hepatoblasts," <i>Proceedings of the National Academy of Sciences, USA</i> , 93(8): 3592-7 (1996).	
	HD	LEYSEN, P. <i>et al.</i> , "Perspectives for the treatment of infections with <i>Flaviviridae</i> ," <i>Clinical Microbiology Reviews</i> (Washington, D.C.), 13(1):67-82 (January 2000).	
	HE	LOHMANN V., <i>et al.</i> , "Biochemical and kinetic analyses of NS5B RNA-dependent RNA polymerase of the Hepatitis C virus," <i>Virology</i> , 249, 108-118 (1998).	
	HF	LOHMANN, V., <i>et al.</i> , "Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line," <i>Science</i> , 285(5424):110-113 (July 2, 1999).	
	HG	LUH, T.-Y., <i>et al.</i> , "A convenient method for the selective esterification of amino-alcohols," <i>Synthetic Communications</i> , 8(5):327-333 (1978).	
	HH	MARTIN, J.A., <i>et al.</i> , "Synthesis and antiviral activity of monofluoro and difluoro analogues of pyrimidine deoxyribonucleosides against human immunodeficiency virus (HIV-1)," <i>J. Med. Chem.</i> , 33(8):2137-2145 (1990).	
	HI	MARTIN, X., <i>et al.</i> , "Intramolecular hydrogen bonding in primary hydroxyl of thymine 1-(1-deoxy- β -D-psicofuranosyl) nucleoside," <i>Tetrahedron</i> , 50(22):6689-6694 (1994).	
	HJ	MATSUDA, A., <i>et al.</i> , "Radical deoxygenation of <i>tert</i> -alcohols in 2'-branched-chain sugar pyrimidine nucleosides: Synthesis and antileukemic activity of 2'-deoxy-2'-(S)-methylcytidine," <i>Chem. Pharm. Bull.</i> , 35(9):3967-3970 (1987).	
	HK	MATSUDA, A., <i>et al.</i> , "Alkyl addition reaction of pyrimidine 2'-ketonucleosides: Synthesis of 2'-branched-chain sugar pyrimidine nucleosides (Nucleosides and Nucleotides. LXXXI)," <i>Chem. Pharm. Bull.</i> , 36(3):945-953 (1988).	
	HL	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 94. Radical deoxygenation of <i>tert</i> -alcohols in 1-(2-C-alkylpentofuranosyl)pyrimidines: Synthesis of (2'S)-2'-deoxy-2'-C-methylcytidine, an antileukemic nucleoside," <i>J. Med. Chem.</i> , 34:234-239 (1991).	
	HM	MATSUDA, A., <i>et al.</i> , "Nucleosides and Nucleotides. 104. Radical and palladium-catalyzed deoxygenation of the allylic alcohol systems in the sugar moiety of pyrimidine nucleosides," <i>Nucleosides & Nucleotides</i> , 11(2/4):197-226 (1992).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **9** of **11****Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS


Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	IA	McCORMICK, J., <i>et al.</i> , "Structure and total synthesis of HF-7, a neuroactive glyconucleoside disulfate from the funnel-web spider <i>Hololena curta</i> ," <i>J. Am. Chem. Soc.</i> , 121(24), 5661-5665 (1999).	
	IB	MCKENZIE, R., <i>et al.</i> , "Hepatic failure and lactic acidosis due to fialuridine (FIAU), an investigational nucleoside analogue for chronic hepatitis B," <i>N. Engl. J. Med.</i> , 333(17):1099-1105 (1995).	
	IC	MEDINA, D. J., <i>et al.</i> , "Comparison of mitochondrial morphology, mitochondrial DNA content, and cell viability in cultured cells treated with three anti-Human Immunodeficiency Virus dideoxynucleosides," <i>Antimicrob. Agents Chemother.</i> , 38(8):1824-8 (1994).	
	ID	MEIER, C., <i>et al.</i> , "Cyclic saligenyl phosphotriesters of 2',3'-dideoxy-2',3'-didehydrothymidine (d4T) – A new pro-nucleic approach," <i>Bioorganic & Med. Chem. Letters</i> 7(2):99-104 (1997).	
	IE	MEYER, R.B., Jr., <i>et al.</i> , "2'-O-Acyl-6-thioinosine cyclic 3',5'-phosphates as prodrugs of thioinosinic acid," <i>J. Med. Chem.</i> 22: 811-815 (1979).	
	IF	MIKHAILOV, S.N., <i>et al.</i> , "Synthesis and properties of 3'-C-methylnucleosides and their phosphoric esters," <i>Carbohydrate Research</i> , 124:75-96 (1983).	
	IG	MIKHAILOV, S.N., <i>et al.</i> , "Substrate properties of C'-methylnucleoside and C'-methyl-2'-deoxynucleoside 5'-triphosphates in RNA and DNA synthesis reactions catalysed by RNA and DNA polymerases," <i>Nucleosides & Nucleotides</i> , 10(1-3):339-343 (1991).	
	IH	MIKHAILOV, S.N., <i>et al.</i> , "Hydrolysis of 2'- and 3'-C-methyluridine 2'c3'-cyclic monophosphates and interconversion and dephosphorylation of the resulting 2'- and 3'-monophosphates: Comparison with the reactions of uridine monophosphates," <i>J. Org. Chem.</i> , 57 (15):4122-4126 (1992).	
	II	NEIDLEIN, R., <i>et al.</i> , "Mild preparation of 1-benzyluloxyminoalkylphosphonic dichlorides: Application to the synthesis of cyclic phosphonic diesters and cyclic monoester amides," <i>Heterocycles</i> 35:1185-1203 (1993).	
	IJ	NUTT, R.F., <i>et al.</i> , "Branched-chain sugar nucleosides. III. 3'-C-methyladenine," <i>J. Org. Chem.</i> , 33:1789-1795 (1968).	
	IK	OIVANEN, M., <i>et al.</i> , "Additional evidence for the exceptional mechanism of the acid-catalyzed hydrolysis of 4-oxypyrimidine nucleosides: Hydrolysis of 1-(1-alkoxyalkyl)uracils, seconucleosides, 3'-C-alkyl nucleosides and nucleoside 3',5'-cyclic monophosphates," <i>J. Chem. Soc. Perkin Trans. 2</i> , 1994:309-314 (1994).	
	IL	ONG, S.P., <i>et al.</i> , "Synthesis of 3'-C-methyladenosine and 3'-C-methyluridine diphosphates and their interaction with the ribonucleoside diphosphate reductase from <i>Corynebacterium nephridii</i> ," <i>Biochemistry</i> , 31(45):11210-11215 (1992).	
	IM	Oral Session V, Hepatitis C Virus, Flaviviridae; 16 th International Conference on Antiviral Research (April 27, 2003, Savannah, Ga.) p A75-77.	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

10

of

11**Complete if Known**

Application Number	10/715,729
Filing Date	November 17, 2003
First Named Inventor	Sommadossi <i>et al.</i>
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	06171.105062 IDX 1023

3420306 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	JA	PAN-ZHOU, X-R, <i>et al.</i> , "Differential effects of antiretroviral nucleoside analogs on mitochondrial function in HepG2 cells," <i>Antimicrob. Agents Chemother.</i> , 44:496-503 (2000).	
	JB	PIANTADOSI, C., <i>et al.</i> , "Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity," <i>J. Med. Chem.</i> 34:1408-1414 (1991).	
	JC	RICHMAN, D.D., <i>et al.</i> , "The toxicity of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-Related Complex," <i>N. Engl. J. Med.</i> , 317(4):192-197 (1987).	
	JD	ROSENTHAL, A., <i>et al.</i> , "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine <i>Carbohydrate Research</i> , 79:235-242 (1980).	
	JE	SAMANO, V., <i>et al.</i> , "Synthesis and radical-induced ring-opening reactions of 2'-deoxyadenosine-2'-spirocyclopropane and its uridine analogue. Mechanistic probe for ribonucleotide reductases," <i>J. Am. Chem. Soc.</i> , 114:4007-4008 (1992).	
	JF	SAMANO, V., <i>et al.</i> , "Nucleic acid related compounds. 77. 2',3'-Didehydro-2',3'-dideoxy-2'(and 3')-methyl nucleosides via [3,3]-sigmatropic rearrangements of 2'(and 3')-methylene-3'(and 2')-O-thiocarbonyl derivatives and radical reduction of a 2'-chloro-3'-methylene analogue," <i>Can. J. Chem.</i> , 71:186-191 (1993).	
	JG	SCHMIT, C., <i>et al.</i> , "The effects of 2'- and 3'-alkyl substituents on oligonucleotide hybridization and stability," <i>Biorganic & Medicinal Chemistry Letters</i> , 4(16):1969-1974 (1994).	
	JH	SERAFINOWSKI, P.J., <i>et al.</i> , "New method for the preparation of some 2'- and 3'-trifluoromethyl-2',3'-dideoxyuridine derivatives," <i>Tetrahedron</i> (Elsevier Science Publishers), 56(2):333-339 (1999).	
	JI	SHARMA, P.K., <i>et al.</i> , "Synthesis of 3'-trifluoromethyl nucleosides as potential antiviral agents," <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 19(4):757-774 (2000).	
	JJ	SOMMADOSSI J-P, <i>et al.</i> , "Toxicity of 3'-azido-3'-deoxythymidine and 9-(1,3-dihydroxy-2-propoxymethyl)guanine for normal human hematopoietic progenitor cells in vitro" <i>Antimicrobial Agents and Chemotherapy</i> , 31:452-454 (1987).	
	JK	SOMMADOSSI J-P, <i>et al.</i> , "Comparison of cytotoxicity of the (-)- and (+)-enantiomer of 2',3'-dideoxy-3'-thiacytidine in normal human bone marrow progenitor cells" <i>Biochemical Pharmacology</i> , 44:1921-1925 (1992).	
	JL	STARRETT, J.E.Jr., <i>et al.</i> , "Synthesis, oral bioavailability determination, and <i>in vitro</i> evaluation of prodrugs of the antiviral agents 9-(2-(phosphonomethoxy)ethyl)adenine (PMEA)," <i>J. Med. Chem.</i> 37: 1857-1864 (1994).	
	JM	TRITSCH, D., <i>et al.</i> , "3'-β-ethynyl and 2'-deoxy-3'-β-ethynyl adenosines: First 3'-β-branched adenosines substrates of adenosine deaminase," <i>Bioorganic & Medicinal Chemistry Letters</i> , 10:139-141 (2000).	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/715,729
				Filing Date	November 17, 2003
				First Named Inventor	Sommadossi <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	11	of	11	Attorney Docket Number	06171.105062 IDX 1023

3420306_1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	KA	TUNITSKAYA, V.L., <i>et al.</i> , "Substrate properties of C'-methyl UTP derivatives in T7 RNA polymerase reactions. Evidence for N-type NTP conformation," <i>FEBS Letters</i> , 400:263-266 (1997).	
	KB	USUI, H., <i>et al.</i> , "Synthesis of 2'-deoxy-8,2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine (Nucleosides and Nucleotides. LXIV)," <i>Chem. Pharm. Bull.</i> , 34(1):15-23 (1986).	
	KC	VASSILEV, V.B., <i>et al.</i> , "Bovine diarrhea virus induced apoptosis correlates with increased intracellular viral RNA accumulation," <i>Virus Res.</i> , 69(2), 95-107 (2000).	
	KD	WALCZAK, K., <i>et al.</i> , "Synthesis of 1-(3-alkyl-2,3-dideoxy-D-pentofuranosyl)uracils with potential anti-HIV activity," <i>Acta Chemica Scand.</i> , 45:930-934 (1991).	
	KE	WALTON, E., <i>et al.</i> , "Branched-chain sugar nucleosides. V. Synthesis and antiviral properties of several branched-chain sugar nucleotides," <i>J. Med. Chem.</i> , 12:306-309 (1969).	
	KF	WEINBERG, R.S., <i>et al.</i> , "Effect of antiviral drugs and hematopoietic growth factors on <i>in vitro</i> erythropoiesis," <i>Mt. Sinai J. Med.</i> 1998;65(1):5-13.	
	KG	WOLFE, M.S., <i>et al.</i> , "A concise synthesis of 2'-C-methylribonucleosides," <i>Tetrahedron Letters</i> , 36(42):7611-7614 (1995).	
	KH	WU, J.-C., <i>et al.</i> , "A new stereospecific synthesis of [3.1.0] bicyclic cyclopropano analog of 2',3'-dideoxyuridine," <i>Tetrahedron</i> , 46(7):2587-2592 (1990).	
	KI	YARCHOAN, R., <i>et al.</i> , "Long-term toxicity / activity profile of 2',3'-dideoxyinosine in AIDS or AIDS-related complex," <i>The Lancet</i> , 336(8714):526-529 (1990).	
	KJ	YOSHIDA Y, <i>et al.</i> , "Reversal of azidothymidine-induced bone marrow suppression by 2',3'-dideoxythymidine as studied by hemopoietic clonal culture," <i>AIDS Res. Hum. Retroviruses</i> , 6(7):929-932 (1990).	
	KK	ZON, G., "Cyclophosphamide Analogues," Chapter 4 in <i>Progress in Medicinal Chemistry</i> , Vol. 19, G.P. Ellis and G.B. West, Eds., pp. 205-246 (1982).	

3420306_1.DOC

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.